

PROJECT 500 - USA



INSTRUCTION MANUAL
MANUALE DI ISTRUZIONI
MANUEL D'INSTRUCTIONS
GEBRAUCHSANWEISUNG
MANUAL DE INSTRUCCIONES

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INHALT

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PROJECT X1 PRESENTATION

Thank you for choosing Lofrans. The Project X1 is the new Lofrans windlass, designed for boat up to 10 mts (30') length. Listed below are the technical features:

- Chromed Bronze finish as standard
- Nominal power with S2 parameter 11 minutes : 500W 12V or 700W 12/24V
- Electric motor waterproof IP 66 degree
- Nickeled chain gipsy
- Rope and chain management
- Main shaft in stainless steel AISI 431
- Independent drum from gipsy
- Haulage speed : from 14 up to 18 mt/min
- Ampere load : from 40 - 60 A (500W 12V), da 50 - 70 A (700W 12V)
- Max pull measured with dynamometer : Kgs 500 (500W) - Kgs 700 (700W) approx
- Weight : Kgs 11

SAFETY INFORMATION

- This product is not designed as a strong point to fasten your anchor rode. Fast the anchor rode to a strong point such as mooring cleat or similar.
- The vessel's engine should always be running and used to assist in the recovery of the ground tackle.
- Always install the properly rated circuit breaker to protect the electric circuit and the motor from overheating and damage.
- Always turn off the main switch when the windlass is not in use to prevent accidental engagement.
- Always keep hands and feet clear of an operating windlass. If a jam occurs turn the windlass off at the main switch before clearing the anchor rode.
- Do not use the windlass for different purposes it was designed for.

WINDLASS WIRING MINIMUM REQUIREMENTS

Below there are the requirements for all the components of the windlass electric plant depending from the motor nominal power.

	500 W 12V	700 W 12V	700 W 24V
A-Battery capacity	80 Ah	100 Ah	70 Ah
B-Power cables size	16 mm ² - 4 AWG	25 mm ² - 3 AWG	16 mm ² - 4 AWG
C-Lofrans Circuit breaker (slow time/current)	35 A	70 A	35 A
Fuse	5 A	5 A	5 A
Control wires size	1,5 mm ² - 14 AWG	1,5 mm ² - 14 AWG	1,5 mm ² - 14 AWG

NOTES

- A. Battery of lower capacity decrease the windlass performances and are rapidly subjected to wear and tear.
- B. This size must be increased when the length of the positive plus the negative cables are more than 25 mts. Use marine grade tinned copper wire.
- C. The Lofrans circuit breaker protects the power line from short circuit and the windlass motor in case of overheating. It must be kept dry and installed in accessible place to be promptly reactivated when it trips. It can be also used to isolate the windlass from the remote controls as we strongly suggest to avoid accidental engagement. All the switches must be wired in parallel. We strongly recommend to have a minimum of two switches to operate the windlass in case one of them gets damage. All Lofrans equipment is CE approved.

INSTALLATION GENERAL REQUIREMENTS

Proper installation of the windlass is critical and these essential conditions listed below need be fully satisfied:

Fig.1 The gipsy of the windlass must be in line with the bow roller.

Fig.2 The deck must be flat. The structure of the boat must be adequate to the load that the windlass is able to pull. If necessary reinforce the deck with a backing pad to spread the stress.

Fig.3 When determining the position of the windlass, it is critical to locate it directly above the deepest area of the chain locker. As the chain falls into the chain locker, it must be maximized because when the chain is stored. The chain tends to gather in the shape of a pyramid, which reduce the available space. If the chain pyramid falls, then overlaps may occur, resulting in jams. The deeper the locker, the less likely this will occur. You must have a minimum of $A=12"$ between the underside of the deck and the top of the heaped chain. The chain locker shape is really important to limit the pyramid problem. The chain coming from the bow roller can be inclined up to 5 degrees.

INSTALLATION PROCEDURE

Fig.4 Carefully position the template provided to the deck. Mark and drill the holes as indicated (see Fig.A). The forward, leading edge of the chain hole should be dressed with a 45° degree angle. A drum rasp or Dremil Tool™ will be helpful. Sand smooth all edges and seal (see Fig.B). Clean the deck area and position the deck gasket supplied.

Fig.5 Loosen the 4 hex nuts (227) to separate the topworks from the gearbox and motor. Position the topworks the deck aligning the gasket properly.

Join the gearbox to the windlass topworks by inserting the key (224) of the main shaft into the key way of the gearbox.

Fasten a washer, lock washer and hex nut to the remaining deck studs. Tighten all hardware properly. Connect the cables as shown in the electric diagram.

TEST PROCEDURE

ATTENTION ! DO NOT OPERATE THE WINDLASS WITHOUT THE ROPE-CHAIN INTO THE GIPSY TO AVOID TO DAMAGE THE PART 905 (FINGER)

Fig.6 Introduce the rope-chain into the gipsy. Please take care to keep hands and feet away of the incoming rope-chain.

Fig.7 Turn on the remote control. Operate the UP switch. The chain will be recovered. Release the UP switch. Operate the DOWN switch. The chain will be released. If the windlass runs in wrong direction change over the UP and DOWN wires at the control box.

Fig.8 After using the windlass, we strongly recommend that the nuts are checked again to ensure they are well tightened.

USE OF THE WINDLASS

The basic operations you need to know are lowering and raising the anchor by electric motor. This product is cone clutch-equipped which allows to you to lower the anchor without using the electric motor. Lofrans strongly recommend to use the chain stopper in conjunction with this windlass. The chain stopper is a device which is normally installed on the boat and will keep your chain in place on deck. It must be used to secure the anchor after anchoring.

OPERATION	FIRST ...	THEN ...
1. USE OF THE CLUTCH ON THE LOW PROFILE MODEL	-	To disengage the clutch insert the handle (842) into the star-shaped slot on the gipsy cap (1050) and loosen it. To engage the clutch again tight the gipsy can until you cannot move the handle any more. Anchor and /or chain provide resistance during the tightening.
2. USE OF THE CLUTCH ON THE STANDARD MODEL	-	To disengage the clutch insert the handle (842) supplied into the clutch nut (1053) and loosen it. To engage the clutch tighten it until you cannot move the handle any more.
3. LOWERING THE ANCHOR BY THE ELECTRIC MOTOR	<ul style="list-style-type: none"> Disengage the Chain stopper Check if the Clutch is engaged Turn On the Circuit breaker 	Simple push the button DOWN. You will have always a perfect control of the operation , which can be interrupted any moment by releasing the button DOWN .
4. AFTER ANCHORING	<ul style="list-style-type: none"> Engage the Chain stopper Engage the Clutch Turn Off the Circuit breaker 	If you have all chain , reduce the windlass load by engaging the chain stopper. If using a combination of rope and chain , fix the rope to a strong point such as a cleat.
5. RAISING THE ANCHOR	<ul style="list-style-type: none"> Disengage the Chain stopper Check if the Clutch is engaged Turn On the Circuit breaker 	Start the engine of the boat. Push the button UP while with the boat at minimum speed going towards the anchoring point. Do not use the windlass to pull the boat to the anchor. Release the button UP to stop the operation. Pay attention to the speed of the anchor , which may damage the bow of your boat. In the event that the anchor becomes stranded and the Lofrans circuit breaker trips , wait several minutes before re-setting and try once more. Should the circuit breaker trip again , we suggest to fix the rope or chain to a cleats and then use the boat engine to break the anchor loose.
6. DURING THE NAVIGATION	<ul style="list-style-type: none"> Engage the Chain stopper Engage the Clutch Turn Off the Circuit breaker 	Windlass must not be used as the sole means of securing the anchor to the bow fitting. Anchors should be independently secured to prevent accidental release. Use a chain stopper or a lanyard to do that.
7. LOWERING THE ANCHOR BY THE CLUTCH	<ul style="list-style-type: none"> Disengage the Chain stopper Turn Off the Circuit breaker 	Disengage the clutch. As the chain falls , it can be controlled by the clutch handle . At the end of the operation engage the clutch.
8. USE THE DRUM	<ul style="list-style-type: none"> Engage the Chain stopper Turn On the Circuit breaker 	Disengage the clutch. Turn clockwise around the drum with 2-3 laps of rope. Keep the end of rope. Push the button UP , recovering the rope at the same time.

MAINTENANCE PROGRAM

Below are indicated the operations and the period we consider essential to get the best efficiency and performance of your anchor windlass.

- Clean all the outer surfaces and the hidden points with fresh water and remove the salt layer.
- Grease the outer rotation parts . Particularly the main shaft thread and the clutch cones. Check for evidences of corrosion and stress.
- Check the terminals of the electric motor. Test the drop of voltage at the terminals.
- Replace of the all outer seals. The gearbox is proper filled with SAE 90 long life oil.
- Remove the windlass from the deck to clean the salt under the base plate.

	YEARLY FREQUENCY OF USE OF THE BOAT			
	LESS THAN 2 MONTHS	FROM 2 TO 6 MONTHS	OVER 6 MONTHS	CHARTER
EVERY 3 MONTHS			A,B	A,B
EVERY 6 MONTHS		A,B		A,B
EVERY 12 MONTHS	A,B,C	C	C	C,D
AFTER 24 MONTHS		D	D	E
AFTER 36 MONTHS	D,E	E	E	

REMOVING THE FINGER

The finger (905) device was designed to work with the rope-chain. If you use chain only we suggest to remove it to avoid wear and tear and noise. You can fit the plug (945) where the finger was previously installed. The disinstallation needs 4 steps :

1. Low profile model : unlock the (1050). Standard model : unscrew the (1053) and remove the (1052). Remove the (1048) and the (206).
2. Unscrew the three (1012) and extract the (1042).
3. Turn the (1042) and remove the (905) and the (906). Insert the (945) into (1042) and screw (293) again. Remove (909) from the (1041).
4. Remount the (1042) and all the other parts.

LOFRANS LIMITED INTERNATIONAL WARRANTY

Lofrans warrants this product for a period of 2 years subjected to the conditions listed below :

1. The product must be registered. The registration must be done within 30 days from the date of purchase by one of these options : online going to the web site www.lofrans.com under the page "Product Registration" and following the instructions or by faxing to +039 2004299 the completed registration card attached to the instruction manual.
2. This warranty starts from the date of purchase of the product from the original purchaser. If the product is first equipment of a new boat the warranty starts from the date of purchase of the boat.
3. This warranty covers original defects in material and workmanship.
4. This warranty is limited to the repairment and/or the replacement of the original defective part.
5. The claim of warranty must be promptly notified in writing and sent by fax or e-mail to Lofrans or Lofrans authorised distributor providing the serial number of the product and the registration warranty number. Lofrans reserves the right to require the proof of purchase of the product to accept the claim of warranty.
6. The defective part/product must be returned to Lofrans or Lofrans authorized distributor. List of authorised distributors is available on the web site www.lofrans.com.
7. This warranty does not cover failures due to : use of the product in applications for which they are not intended , corrosion , normal wear and tear , discoloration , unauthorised alteration of the product , improper installation , incorrect use or maintenance of the product , conditions that exceed the product's performance specifications
8. This warranty does not cover any loss or damages to the original purchaser due to a proven non conformity of the product with the exception of the cases ruled by the Italian law.
9. Lofrans reserves the right to disclaim the warranty in case the product be controlled by improper electric devices and/or in case of non installation of a proper circuit breaker on the electric power line.

The consumer statutory rights are not affected by this warranty according to the national legislation, disciplining the sale of goods.

This warranty is ruled by the Italian law

For every controversy the Court of Milan is competent exclusively.

APPENDIX

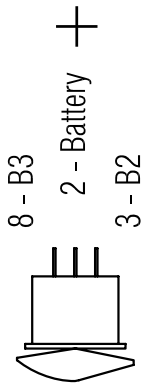
GIPSY	TYPE OF CHAIN	Diagram 1: Chain Link		Diagram 2: Rope
		DIAMETER	PITCH	
6-3/16 BBB	6 ISO	6 mm	18 mm	10 mm - 3/8"
	3/16" American Acco BBB	3/16"	0,78"	10 mm - 3/8"
7-1/4 HT	1/4" American G-4 ISO	1/4"	0,84"	12 mm - 1/2"
8-5/16 HT	8 ISO	8 mm	24 mm	12 mm - 1/2"
	8 German Din 766	8 mm	24 mm	12 mm - 1/2"
	5/16" American Acco BBB	5/16"	1,00"	12 mm - 1/2"
	5/16" American G-4 ISO	5/16"	1,03"	12 mm - 1/2"



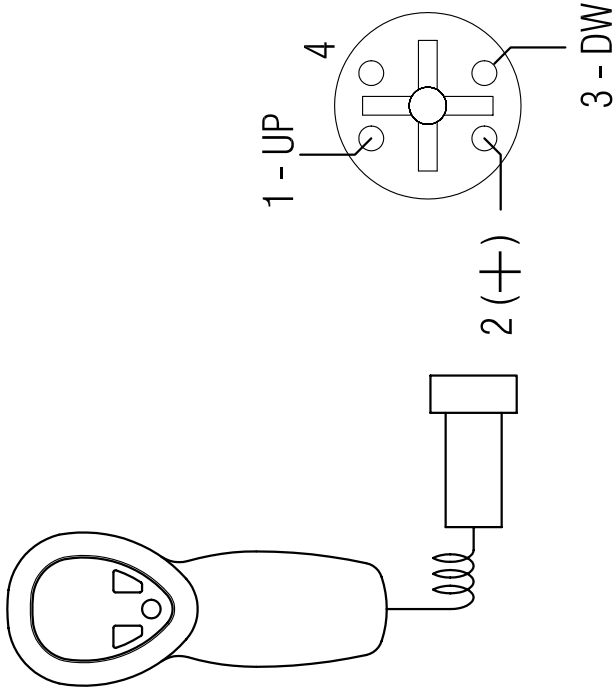
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FOR CONTROL BOX CODE 61040012CB - 61040024CB

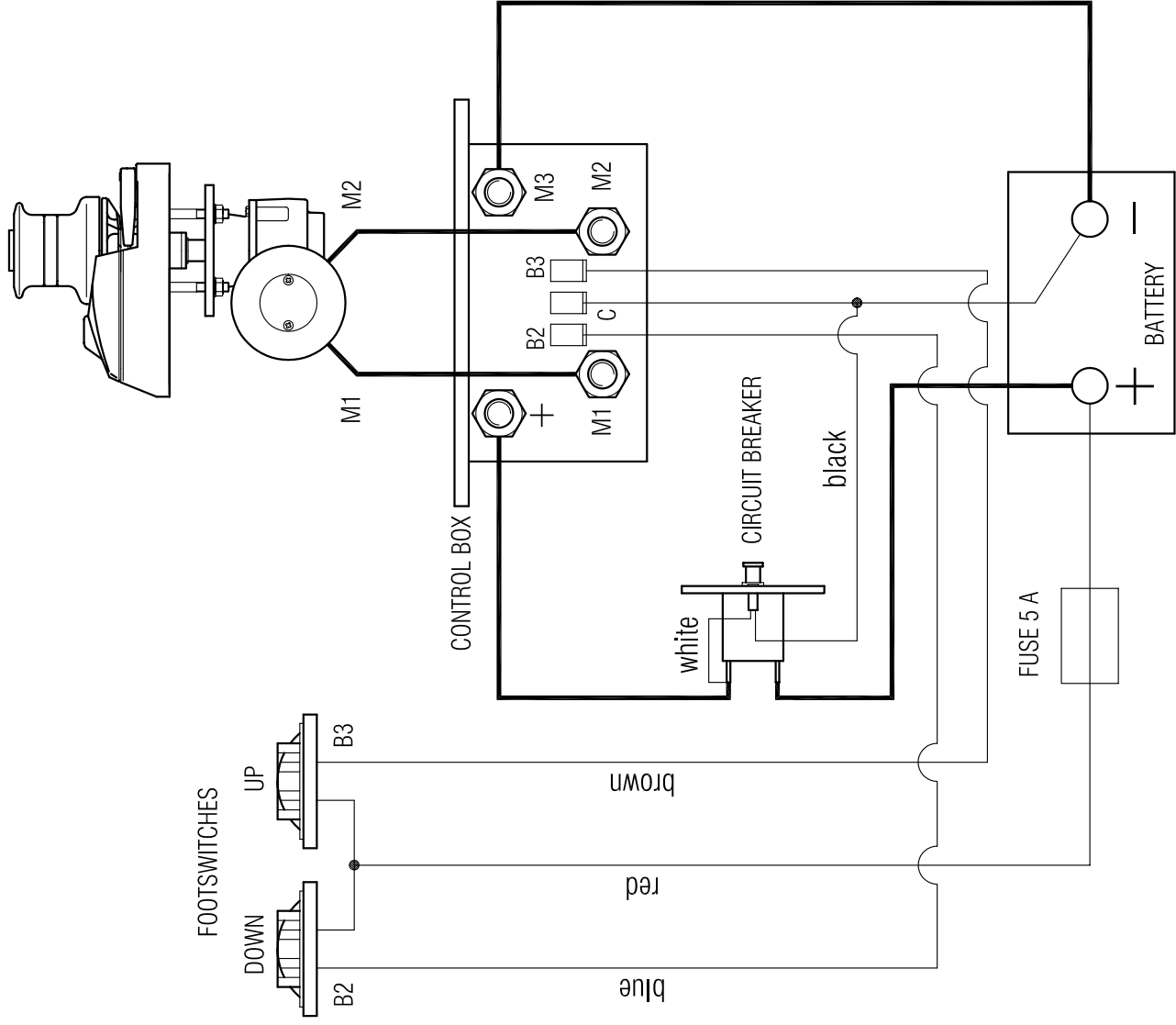
ROCKER SWITCH TYPE C

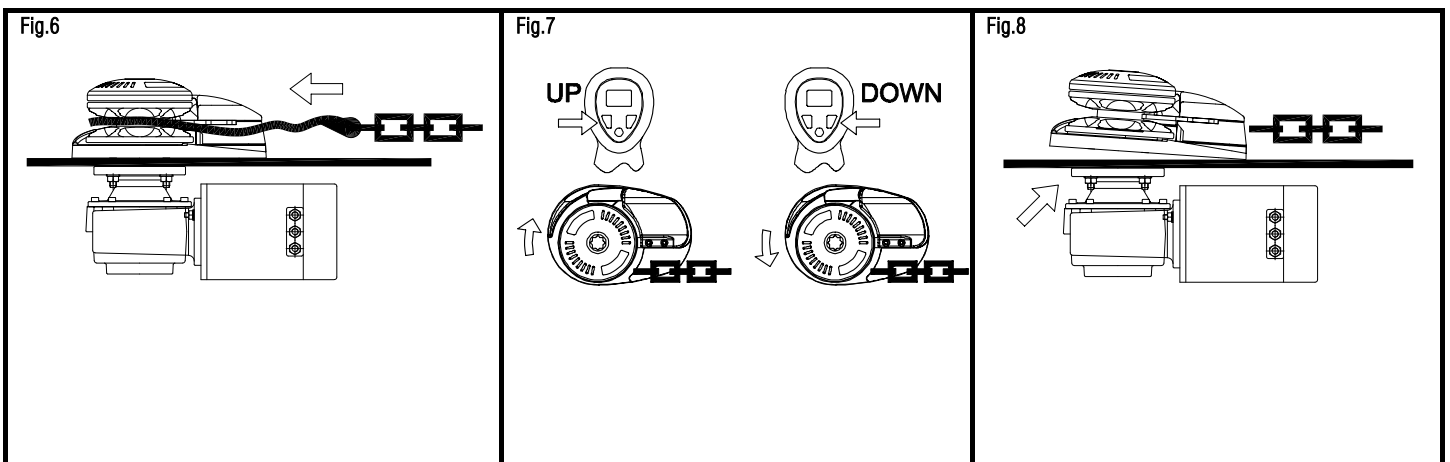
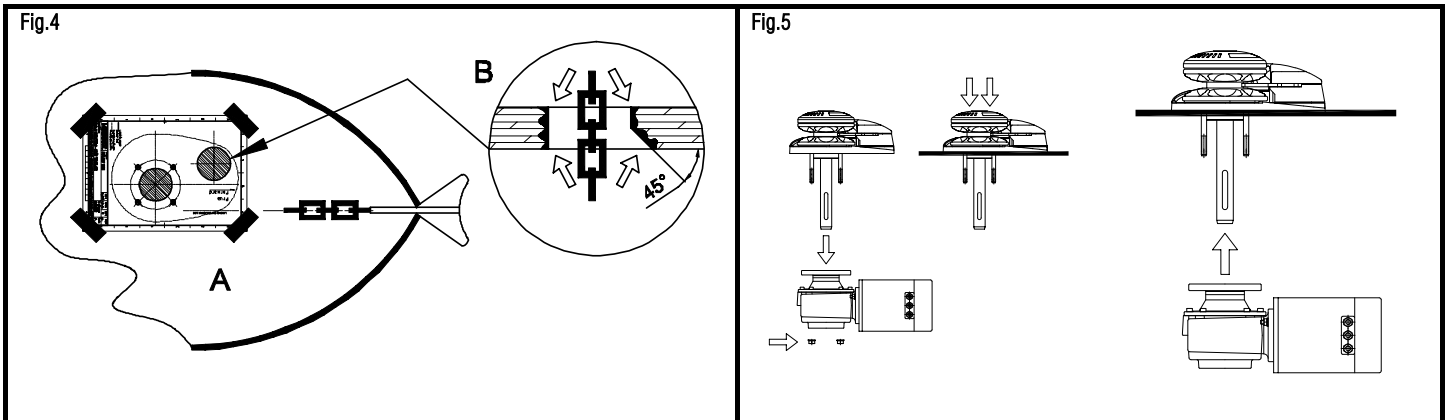
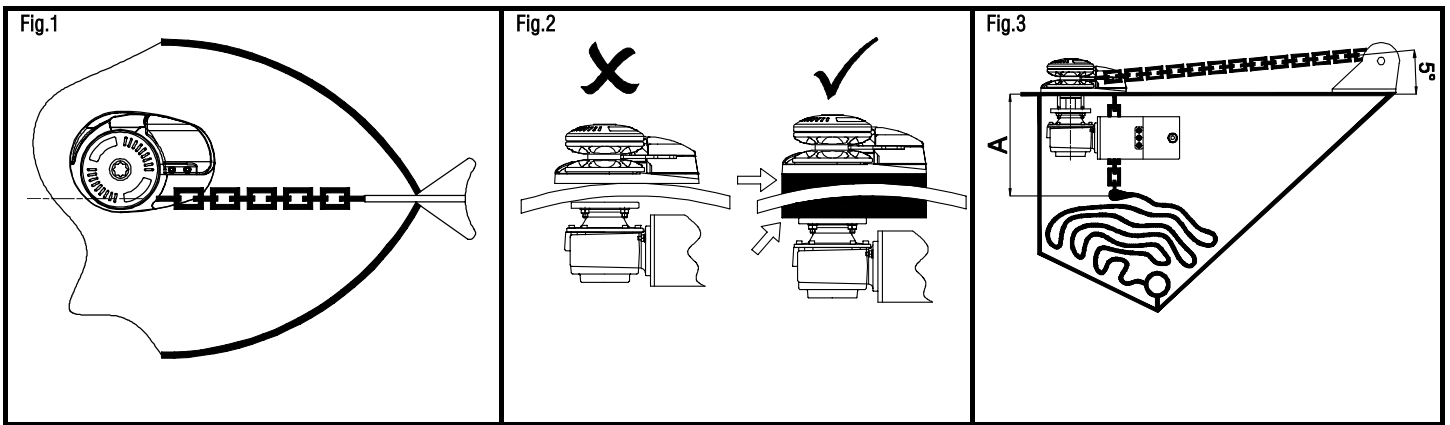


REMOTE CONTROL MIRA



WIRING DIAGRAM - 2 TERMINALS ELECTRIC MOTOR

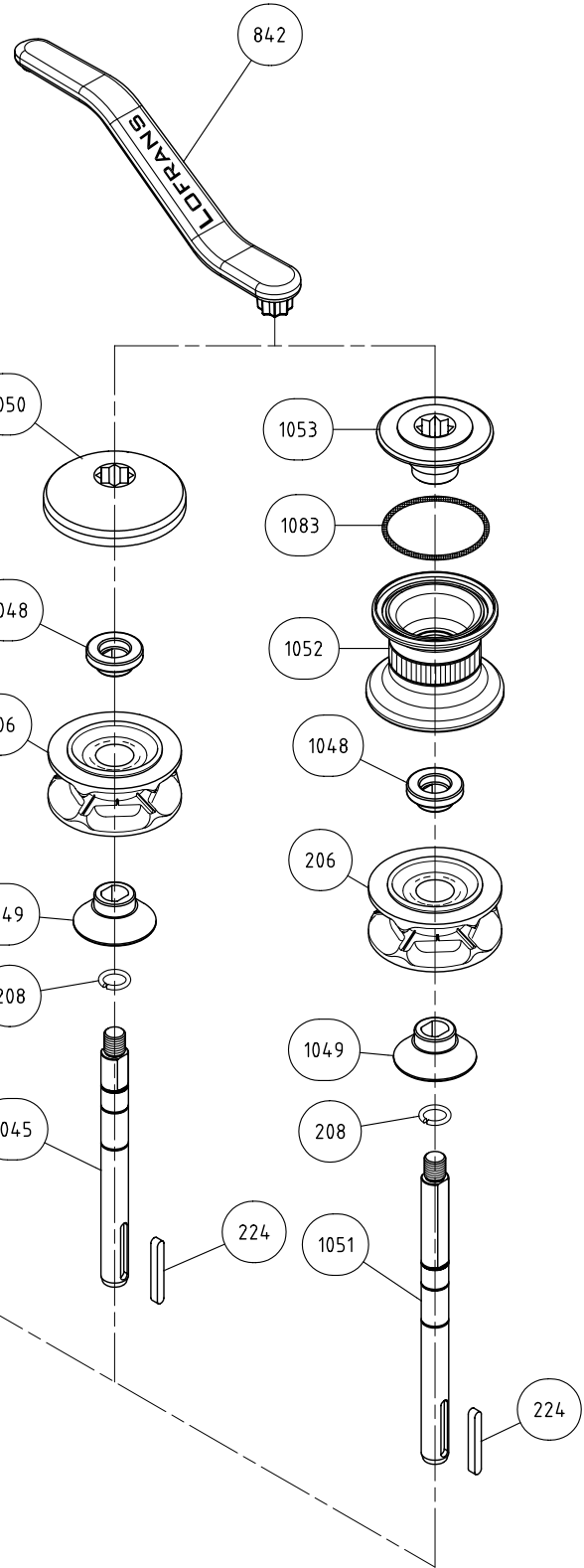
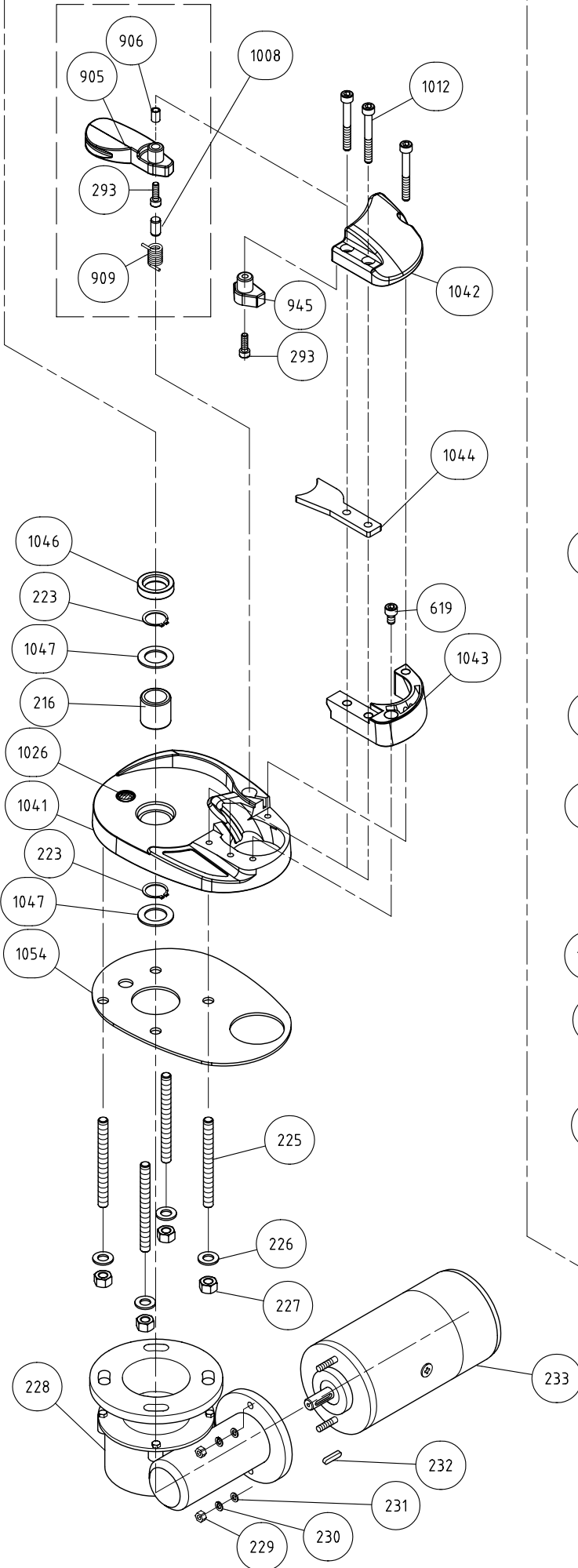




PROJECT 500-USA

code: B.39.102
date: 11-2005

FINGER KIT



LOFRANS' SALES ORGANIZATION

ARGENTINA

DOMINGO P. PEDRONI S.A.I.C.
9 de Julio 198 - 1646 S. Fernando - Bs.As.

AUSTRIA

G.ASCHERL GmbH
Erlengrund 38 - 6971 Hard
HARTMANN
Hafenstrasse 5
A - 6971 Hard a. Bodensee

BAHRAIN - ARABIAN GULF

2000 MARINE STORES
P.O. Box 26927
Manama

BELGIUM

HUNTER N.V.
St. Bernardsesteenvweg 858-864
2660 Hoboken (Antwerpen)

CANADA

REKORD MARINE ENTERPRISES Ltd.
8194 Ontario Street
Vancouver B.C. V5X 3E3

CANARY ISLANDS

NORDEST - Roberto Origgi
Ap. de Correo 10431
38080 Santa Cruz de Tenerife

CARIBBEAN

BUDGET MARINE N.V.
P.O. Box 434
25B Waterfront Road - Cole Bay - St. Maarten

CROATIA -SLOVENJA

UNIMAR S.r.l.
Via Valdirivio 26
34134 Trieste-Italy

CYPRUS

MERCURY DIVERS COMPANY LTD.
15, Franklin Roosevelt Av. - Orphanides House
P.O. Box 469 - Limassol

DENMARK

PALBY MARINE A/S
Bommethavevej 41 Slejde
DK 7100 Vejle

EGYPT

MAPSO Marine Propulsion and Supply S.A.E.
11(A) Mohamed Anis St.
Zamalek - Cairo

ENGLAND

E.C. SMITH & SONS LTD.
Unit H & J Kingsway - Industrial Estate, Kingsway
Luton Beds., LU1 1LP

FINLAND

OY MARTIM AB
P.O. Box 46
00211 Heisinki 21

FRANCE

ACCASTILLAGE BERNARD
880 Avenue Saint Exupéry
06210 Mandelieu

AMTOT S.A.

41, Quai Duguay-Trouin - Boite Postale 106
35407 Saint-Malo

ELECTRIC-AUTO-YACHTING S.A.R.L.

6 Rue de la Paix
13001 Marseille

R.E.Y.A.

144, Avenue de la Roubine
06150 Cannes-La Boca

SEIMI S.A.

Rue Alain -Colas
ZIP-Port du Moulin Blanc - Boite Postale 243
29272 Brest

VIDAL DIFFUSION MARINE

Z.I. Toulon EST
Toulon Cedex 9

GERMANY

S.V.B.
Gelsenkirchener st. 25
28199 Bremen

GREECE

ALEX MARINE
5 Leocharous Str.
185 31 Piraeus

HONG KONG

ELCO MARINE & ENGINEERING LTD.
20 Yip Fung Street
Unit 6, G/F - Lincoln Centre - Fanling
New Territories HONG KONG

ISRAEL

ATLANTIS MARINE LTD
147 Kikar Atarim
169 Hayarkon Str. - Tel Aviv 63453

LEBANON

MARINE DIFFUSION
B.P. 8389 Beyrouth

MALTA

INTERNATIONAL MARINE CENTRE
Ta'Xhniex Palace
Testaferrata Street Msida

NEW CALEDONIE

LIMOUSIN MARINE
70, R.te du Port Despointes-B. P. 701
Noumea

NEW ZEALAND

EUROMARINE
P.O. BOX 10144
Dominion Road-Aukland 10

NEDERLANDS

VETUS DEN OUDEN N.V.
Fokkerstrat 571
3125 Bd Schiedam

HUNGARY

MIMOKER Co.
Orso Utca 3
H 1026 Budapest

NORWAY

TELMO CONTROL A.S.
Rolf Hofmos GT. 18 - Postboks 2906 Toyen
0608 OSLO 6

POLAND

MAZURIA
11 214 Galiny 2

PORTUGAL

NAUTICOR
Rua Bartolomeu Dias 172 A/D
1400 Lisboa

SINGAPORE

AMERICAN MARINE (S) PTE LTD.
No. 26 Jalan Terusan
Jurong Town Singapore 2261

SOUTH AFRICA

MANEX & POWER MARINE (PTY) LTD.
19 Dorsetshire Street - P.O. Box 182
7420 Paarden Eiland-Cape Town

SPAIN

LA INDUSTRIAL VELERA MARSAL S.A.
Muntadas 8 y 10
08014 Barcelona
IMINASA S.A.

Adva. Zaragoza 73/75

17220 Sant Feliu de Giuxols (Girona)

SWEDEN

ITALNORDIC
Företagsvägen - Box 12
440 90 Henan

TAIWAN

GENCO MARINE LTD.
Suite 5F 5 169 Min Shen East Road, Sec.5
P.O. Box 87-908 - Taipei Taiwan 10582

TURKEY

CARKCI DENIZCILIK San.Ye.Tic.Ltd. Sti.
Özek ski tersalener yolu nuh sanayi sitesi 36
Icmeler Tusla - Istanbul

U.S.A.

IMTRA CORPORATION
30 Samuel Barnet Blvd - New Bedford Industrial Park
New Bedford Massachusetts 02745